#### **BULLY CAMP**

LOCATION: The northern boundary of Bully Camp is Bayou Blue, the eastern boundary of Bully Camp is the South Lafourche levee system. The southern boundary is a series of oil and Gas access canals and the Raccourci EMU. The Western boundary of the EMU is Grand Bayou and the Pointe-au-Chien EMU.

SOILS: Vast area of fresh to slightly brackish marsh soils. These are organic layers underlain by Gray silty clay or clay. If flooded, organic layers will separate and float. There is a narrow strip of alluvial soils along the Bayou Blue levee ridge. Soils on the levee are Commerce-Moon Association soils grading into Sarkey-Tunica Association soils.

VEGETATION: Alluvial and swamp vegetation (oak, cypress tupelogum) grade into freshwater marsh vegetation, (i.e. cattail, alligator weed and maiden cane.) Marshes become brackish due to tidal fluctuations and saltwater intrusion. Woody vegetation has also begun to grow along oil and gas canal spoil banks.

SUBSIDENCE POTENTIAL IF DRAINED: Moderate along Highway 24, very high due to the nature of the soils in the marsh lands. Subsidence has been 4 to 5 feet due to mineral extraction, especially sulphur extraction.

LAND LOSS POTENTIAL DUE TO CHANNEL CONSTRUCTION: High for marsh lands, Medium to Low along levee ridges.

TOPOGRAPHIC FEATURES: Highway 24 forms the northern boundary of the unit. Elevations are 2 to 4 feet MSL along the Bayou Blue levee ridge grading down to lower lying marsh lands. Several major bayous and canals cross the unit including Grand Bayou Grand Bayou Canal, Bayou Blue and Bayou Bouillon. Numerous location canals cross the Bully Camp Oil and Gas Field.

FLOODING POTENTIAL: The entire study unit is flood prone.

IMPORTANT FARMLANDS: Soils classified as Prime Farmland are found along Highway 24.

USE OF LAND: A large tract of land is devoted to mineral extraction at the Bully Camp Oil and Gas Field. It is one of the most heavily impacted areas due to mineral extraction, especially sulphur mining. The sulphur mine, located in this EMU is a unique economic resource, one of the few onshore sulphur mines in the coastal areas of Louisiana. The land is also part of the Pointe-au-Chien Wildlife Management Area, an important Wildlife habitat. The area is used for both commercial and recreational hunting and trapping.

UNIQUE ECOLOGICAL FEATURES: The Pointe-au-Chien Wildlife Management Area, an important wildlife habitat consisting of approximately 28,000 acres, is partially within this study unit.

RECREATIONAL POTENTIAL: Excellent area for hunting and for fishing. At one time the area was known for deer hunting. However, subsidence of the land has removed most of the deer habitat. The area is a tremendous recreational resource, attracting people from all over the state.

HYDROLOGIC RESOURCES: The area has little or no potable fresh water other than occasional lenses of fresh water floating on salt water. The water table is at the surface.

## HISTORIC/CULTURAL/ARCHEOLOGICAL:

- A. Historic Sites:
- 1. The Lake Bully Camp Sulphur Mine.
- B. Cultural Sites: None
- C. Archeological Sites:

LF 31 Known Shell Hidden on Highway 24

## PROBLEMS NOTED:

- 1. Very high subsidence potential in marsh lands if drained
- 2. High land loss potential throughout the marsh lands due to channel construction
- 3. Flood hazard potential throughout the area
- 4. Loss of excellent wildlife habitats and recreational areas due to loss of land from channel construction and mineral extraction
- 5. Saltwater intrusion into fresh water marshes

#### **GOALS**

- 1. To protect the remaining fresh marsh in this EMU from erosion and saltwater intrusion
- 2. To contain the large open water area (Area A) from spreading any further
- 3. Reduce saltwater intrusion by use of spoil and dams in southern portion of the EMU

# POLICIES FOR BULLY CAMP

The Bully Camp EMU exhibits a varied environment. The extreme northern section contains some of the only remaining swamp forest in the Lafourche Coastal Zone as well as fresh marsh. The southern section is highly eroded due to the effects of subsidence and erosion from mineral extraction activities. Two sub areas have been identified in this EMU.

Area A - The southern portion of the EMU categorized by oil and gas access canals and large areas of open water caused by subsidence associated with the Bully Camp Sulphur Mine.

Area B - Largely intact brackish and fresh marsh area with small patches of swamp forest and natural levee in the extreme northern portion.

# **GENERAL POLICIES**

POLICY 1. All General Policies for the Lafourche Coastal Zone shall apply in this EMU unless modified by specific EMU or sub-EMU policies stated in this EMU policy statement.

POLICY 2. There shall be no illegal dumping in this EMU of any liquid or solid waste. Existing tank storage sites and well sites shall follow all applicable guidelines as specified by the Louisiana Department of Natural Resources regarding the storing and disposal of wastes from mud pits, well construction, etc.

## POLICIES FOR AREA A

The object of policies for this area is to contain the water area in the south as well as preserve the intact area immediately north of this water area. (See Area C of Raccourci for Policies to contain the water area in the south.)

POLICY 3. All new east - west canals should have spoil banks placed on their south side to retard the spread of the water area in Bully Camp.

POLICY 4. No canals should be connected, unless there is no other economically feasible alternative to accomplish the requested activity. Both ends of the connector should be plugged and the canal backfilled after the activity is complete.

POLICY 5. Any dredging in the Grand Canal should require that spoil be placed continuously along the east bank to retard saltwater intrusion.

POLICY 6. At least one dam should be placed on Bayou Blue as indicated on the EMU map, to retard saltwater intrusion into the freshwater zones. Construction of this dam shall be accomplished by imposing mitigation conditions on permits in the area.

POLICY 7. Existing canals should be used wherever possible and new canals into the relatively intact brackish water marsh in the northern part of Area A should be kept to the minimum number and length necessary to accomplish the activity and subject to the Lafourche General Policies.

POLICY 8. The series of existing oil and gas access canals in the eastern portion of Area A near the South Lafourche Levee should have a dam placed near the mouth of the main canal as indicated on the Bully Camp EMU. Construction of this dam should be

accomplished by imposing mitigation conditions on permits in the area of this proposed construction.

POLICY 9. A dam should be constructed along the Grand Canal to slow down saltwater intrusion from the south into the area as indicated on the EMU map. The construction of this dam shall be accomplished as per the method outlined in Policy 7.

POLICY 10. In suitable areas, spoil from dredging activities may be required to be spread out in pending areas to encourage new marsh growth.

## AREA B

Area B contains the only fresh marsh remaining in the Lafourche Coastal Zone on the west side of Bayou Lafourche. It also contains one of the few swamp forest areas.

POLICY 11. Board roads are possible in this area. As such they are subject to the Lafourche General Policies.

POLICY 12. A dam should be placed on the Grand Canal to retard the northward spread of saltwater as indicated on the EMU map. Construction of this dam should be accomplished as stated in Policy 7 of this EMU.

POLICY 13. North - south canals should he avoided, especially those that connect with water bodies to the south. If these canals are necessary, they should be plugged at both ends and backfilled as per the Lafourche General Policies.

POLICY 14. Any additional reclamation activities in the swamp forest, fresh water or brackish marsh areas adjacent to the Bayou Blue natural levee ridges will be discouraged due to poor soil conditions and propensity of the areas to flood.

POLICY 15. Any east - west canals in the southern portion of this area should have spoil placed on their southern bank to retard erosion and saltwater intrusion.

POLICY 16. In suitable areas, spoil from dredging activity may be required to be spread out in ponded areas to encourage new marsh growth, especially in the ponded fresh marsh area adjacent to the Bayou Blue natural levee.

POLICY 17. Dredging on Grand Canal should require that spoil be placed continuously on both banks to retard erosion and saltwater intrusion.

POLICY 18. Human habitation on the non-wetland portion of the Bayou Blue natural levee should not be discouraged provided all solid waste and sewerage requirements of the parish and state are met and precautions against flooding required by the Parish Development Permit Officer for the Federal Flood Insurance Program are met.

POLICY 19. No solid waste or hazardous waste shall be disposed of on the natural levee, non-wetland areas, unless solid waste disposal regulations are met by the disposal site.

Besides these guidelines, all coastal use guidelines as stated in the F.E.I.S. of the Louisiana Coastal Zone Management Program shall apply to this EMU

Where EMU policies refer to a "use of state concern", the policies are intended only as recommendations to the state program managers and are not legally binding on the permit applicant or the state CZAR program.